

Cunningham 3968

1816

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**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/819,669**

DATE: 10/14/97
TIME: 16:34:31

INPUT SET: S20989.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

SEQUENCE LISTING

- 3 (1) General Information:

4

5 (i) APPLICANT: Boon-Falleur, Thierry; Van der Bruggen, Thierry;
6 Van den Eynde, Beno t; Van Pel, Aline; De Plaen, Etienne;
7 Lurquin, Christophe; Chomez, Patrick; Traversari, Catia

8

9 (ii) TITLE OF INVENTION: Tumor Rejection Antigen Precursors, Tumor
10 Rejection Antigens and Uses Thereof

11

12 (iii) NUMBER OF SEQUENCES: 26

13

14 (iv) CORRESPONDENCE ADDRESS:
15 (A) ADDRESSEE: Felfe & Lynch
16 (B) STREET: 805 Third Avenue
17 (C) CITY: New York City
18 (D) STATE: New York
19 (F) ZIP: 10022

20

21 (v) COMPUTER READABLE FORM:
22 (A) MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage
23 (B) COMPUTER: IBM
24 (C) OPERATING SYSTEM: PC-DOS
25 (D) SOFTWARE: Wordperfect

26

27 (vi) CURRENT APPLICATION DATA:
28 (A) APPLICATION NUMBER: 08/819,669
29 (B) FILING DATE: 17-MAR-1997
30 (C) CLASSIFICATION: 530

31

32 (vii) PRIOR APPLICATION DATA:
33 (A) APPLICATION NUMBER: 08/142,368
34 (B) FILING DATE: 02-MAY-1994

35

36 (A) APPLICATION NUMBER: PCT/US92/04354
37 (B) FILING DATE: 22-MAY-1992

38

39 (vii) PRIOR APPLICATION DATA:
40 (A) APPLICATION NUMBER: 07/807,043
41 (B) FILING DATE: 12-DECEMBER-1991

42

43 (vii) PRIOR APPLICATION DATA:
44 (A) APPLICATION NUMBER: 07/764,364
45 (B) FILING DATE: 23-SEPTEMBER-1991

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/819,669DATE: 10/14/97
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47 (vii) PRIOR APPLICATION DATA:
48 (A) APPLICATION NUMBER: 07/728,838
49 (B) FILING DATE: 9-JULY-1991
50
51 (vii) PRIOR APPLICATION DATA:
52 (A) APPLICATION NUMBER: 07/705,702
53 (B) FILING DATE: 23-May-1991
54
55 (viii) ATTORNEY/AGENT INFORMATION:
56 (A) NAME: Hanson, Norman D.
57 (B) REGISTRATION NUMBER: 30,946
58 (C) REFERENCE/DOCKET NUMBER: LUD 5253.4-US
59
60 (ix) TELECOMMUNICATION INFORMATION:
61 (A) TELEPHONE: (212) 688-9200
62 (B) TELEFAX: (212) 838-3884
63
64
65

66 (2) INFORMATION FOR SEQ ID NO: 1:
67 (i) SEQUENCE CHARACTERISTICS:
68 (A) LENGTH: 462 base pairs
69 (B) TYPE: nucleic acid
70 (C) STRANDEDNESS: single
71 (D) TOPOLOGY: linear
72 (ii) MOLECULE TYPE: genomic DNA
73 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
74
75
76
77

78 ACCACAGGAG AATGAAAAGA ACCCGGGACT CCCAAAGACG CTAGATGTGT GAAGATCCTG	60
79 ATCACTCATT GGGTGTCTGA GTTCTGCGAT ATTCATCCCT CAGCCAATGA GCTTACTGTT	120
80 CTCGTGGGGG GTTTGTGAGC CTTGGTAGG AAGTTTGCA AGTCCGCCT ACAGCTCTAG	180
81 CTTGTGAATT TGTACCCATT CACGTAAAAA AGTAGTCCAG AGTTTACTAC ACCCTCCCTC	240
82 CCCCCTCCCA CCTCGTGCTG TGCTGAGTT AGAAGTCCTC CTTATAGAAG TCTTCCGTAT	300
83 AGAACTCTTC CGGAGGAAGG AGGGAGGACC CCCCCCCTTT GCTCTCCCAG CATGCATTGT	360
84 GTCAACGCCA TTGCACTGAG CTGGTCGAAG AAGTAAGCCG CTAGCTTGCG ACTCTACTCT	420
85 TATCTTAACT TAGCTCGGCT TCCTGCTGGT ACCCTTGTG CC	462

86
87
88
89
90 (2) INFORMATION FOR SEQ ID NO: 2:
91 (i) SEQUENCE CHARACTERISTICS:
92 (A) LENGTH: 675 base pairs
93 (B) TYPE: nucleic acid
94 (C) STRANDEDNESS: single
95 (D) TOPOLOGY: linear
96 (ii) MOLECULE TYPE: genomic DNA
97 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
98
99

**RAW SEQUENCE LISTING
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100	ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA GGT GGT	48
101	Met Ser Asp Asn Lys Lys Pro Asp Lys Ala His Ser Gly Ser Gly Gly	
102	5 10 15	
103	GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG TAC TCC CTG GAA	96
104	Asp Gly Asp Gly Asn Arg Cys Asn Leu Leu His Arg Tyr Ser Leu Glu	
105	20 25 30	
106	GAA ATT CTG CCT TAT CTA GGG TGG CTG GTC TTC GCT GTT GTC ACA ACA	144
107	Glu Ile Leu Pro Tyr Leu Gly Trp Leu Val Phe Ala Val Val Thr Thr	
108	35 40 45	
109	AGT TTT CTG GCG CTC CAG ATG TTC ATA GAC GCC CTT TAT GAG GAG CAG	192
110	Ser Phe Leu Ala Leu Gln Met Phe Ile Asp Ala Leu Tyr Glu Glu Gln	
111	50 55 60	
112	TAT GAA AGG GAT GTG GCC TGG ATA GCC AGG CAA AGC AAG CGC ATG TCC	240
113	Tyr Glu Arg Asp Val Ala Trp Ile Ala Arg Gln Ser Lys Arg Met Ser	
114	65 70 75 80	
115	TCT GTC GAT GAG GAT GAA GAC GAT GAG GAT GAT GAG GAT GAC TAC TAC	288
116	Ser Val Asp Glu Asp Asp Asp Asp Ala Phe Tyr Asp Asp Glu Asp Asp Tyr Tyr	
117	85 90 95	
118	GAC GAC GAG GAC GAC GAT GCC TTC TAT GAT GAT GAG GAT GAT GAT GAT	336
119	Asp Asp Glu Asp Asp Asp Asp Ala Phe Tyr Asp Asp Glu Asp Asp Asp	
120	100 105 110	
121	GAG GAA GAA TTG GAG AAC CTG ATG GAT GAT GAA TCA GAA GAT GAG	384
122	Glu Glu Glu Leu Asn Leu Met Asp Asp Glu Ser Glu Asp Glu	
123	115 120 125	
124	GCC GAA GAA GAG ATG AGC GTG GAA ATG GGT GCC GGA GCT GAG GAA ATG	432
125	Ala Glu Glu Glu Met Ser Val Glu Met Gly Ala Gly Ala Glu Glu Met	
126	130 135 140	
127	GGT GCT GGC GCT AAC TGT GCC TGT GTT CCT GGC CAT CAT TTA AGG AAG	480
128	Gly Ala Gly Ala Asn Cys Ala Cys Val Pro Gly His His Leu Arg Lys	
129	145 150 155 160	
130	AAT GAA GTG AAG TGT AGG ATT TAT TTC TTC CAC GAC CCT AAT TTC	528
131	Asn Glu Val Lys Cys Arg Met Ile Tyr Phe Phe His Asp Pro Asn Phe	
132	165 170 175	
133	CTG GTG TCT ATA CCA GTG AAC CCT AAG GAA CAA ATG GAG TGT AGG TGT	576
134	Leu Val Ser Ile Pro Val Asn Pro Lys Glu Gln Met Glu Cys Arg Cys	
135	180 185 190	
136	GAA AAT GCT GAT GAA GAG GTT GCA ATG GAA GAG GAA GAA GAA GAG	624
137	Glu Asn Ala Asp Glu Glu Val Ala Met Glu Glu Glu Glu Glu Glu	
138	195 200 210	
139	GAG GAG GAG GAA GAG GAA ATG GGA AAC CCG GAT GGC TTC TCA CCT	672
140	Glu Glu Glu Glu Glu Met Gly Asn Pro Asp Gly Phe Ser Pro	
141	220 225 230 235	
142		
143	TAG	675
144		
145		
146		
147	(2) INFORMATION FOR SEQ ID NO: 3:	
148	(i) SEQUENCE & CHARACTERISTICS:	
149	(A) LENGTH: 228 base pairs	
150	(B) TYPE: nucleic acid	
151	(C) STRANDEDNESS: single	
152	(D) TOPOLOGY: linear	

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**RAW SEQUENCE LISTING
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153	(ii) MOLECULE TYPE: genomic DNA	
154	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:	
155		
156		
157		
158	GCATGCAGTT GCAAAGCCCA GAAGAAAGAA ATGGACAGCG GAAGAAGTGG TTGTTTTTTT	60
159	TTCCCTTCA TTAATTTCT AGTTTTAGT AATCCAGAAA ATTGATTGT GTTCTAAAGT	120
160	TCATTATGCA AAGATGTCAC CAACAGACTT CTGACTGCAT GGTGAACCTT CATATGATA	180
161	ATAGGATTAC ACTTGTACCT GTTAAAAATA AAAGTTTGAC TTGCATAC	228
162		
163		
164	(2) INFORMATION FOR SEQ ID NO: 4:	
165	(i) SEQUENCE CHARACTERISTICS:	
166	(A) LENGTH: 1365 base pairs	
167	(B) TYPE: nucleic acid	
168	(C) STRANDEDNESS: single	
169	(D) TOPOLOGY: linear	
170	(ii) MOLECULE TYPE: genomic DNA	
171	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:	
172		
173		
174	ACACACAGGAG AATGAAAAGA ACCCGGGACT CCCAAAGACG CTAGATGTGT	50
175	GAAGATCCTG ATCACTCATT GGGTGTCTGA GTTCTCGCAT ATTCTATCCCT	100
176	CAGCCAATGA CCTTACTGTT CTCGTGGGG GTTTGTGAGC CTTGGGTAGG	150
177	AAGTTTGCA AGTTCCGCCT ACAGCTCTAG CTTGTGAATT TGTACCCTTT	200
178	CACGTAAAAA AGTAGTCCAG AGTTTACTAC ACCCTCCCTC CCCCTCCCCA	250
179	CCTCGTGTG TGCTGAGTTT AGAAGTCCTTC CTTATAGAAG TCTTCCGTAT	300
180	AGAACTCTTC CGGAGGAAGG AGGGAGGACC CCCCCCCTTT GCTCTCCCAG	350
181	CATGCATTGT GTCAACGCCA TTGCACTGAG CTGGTCGAAG AAGTAAGCCG	400
182	CTAGCTTGCG ACTCTACTCT TATCTTAACT TAGCTCGGCT TCCTGCTGGT	450
183	ACCCCTTGCG CC	462
184	ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA	504
185	GGT GGT GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG	546
186	TAC TCC CTG GAA GAA ATT CTG CCT TAT CTA GGG TGG CTG GTC	588
187	TTC GCT GTT GTC ACA ACA AGT TTT CTG GCG CTC CAG ATG TTC	630
188	ATA GAC GCC CTT TAT GAG GAG CAG TAT GAA AGG GAT GTG GCC	672
189	TGG ATA GCC AGG CAA AGC AAG CGC ATG TCC TCT GTC GAT GAG	714
190	GAT GAA GAC GAT GAG GAT GAT GAC TAC TAC GAC GAC	756
191	GAG GAC GAC GAC GAT GAT GCC TTC TAT GAT GAT GAG GAT GAT	798
192	GAG GAA GAA GAA TTG GAG AAC CTG ATG GAT GAT GAA TCA GAA	840
193	GAT GAG GCC GAA GAA GAG ATG AGC GTG GAA ATG GGT GCC GGA	882
194	GCT GAG GAA ATG GGT GCT GGC GCT AAC TGT GCC TGT GTT CCT	924
195	GGC CAT CAT TTA AGG AAG AAT GAA GTG AAG TGT AGG ATG ATT	966
196	TAT TTC TTC CAC GAC CCT AAT TTC CTG GTG TCT ATA CCA GTG	1008
197	AAC CCT AAG GAA CAA ATG GAG TGT AGG TGT GAA AAT GCT GAT	1050
198	GAA GAG GTT GCA ATG GAA GAG GAA GAA GAA GAG GAG GAG	1092
199	GAG GAG GAA GAA ATG GGA AAC CCG GAT GGC TTC TCA CCT	1134
200	TAG	1137
201	GCATGCAGT GCAAAGCCCA GAAGAAAGAA ATGGACAGCG GAAGAAGTGG	1187
202	TTGTTTTTT TTCCCTTCA TTAATTTCT AGTTTTAGT AATCCAGAAA	1237
203	ATTGATTGT GTTCTAAAGT TCATTATGCA AAGATGTCAC CAACAGACTT	1287
204	CTGACTGCAT GGTGAACCTT CATATGATAAC ATAGGATTAC ACTTGTACCT	1337
205	GTtAAAAATA AAAGTTTGAC TTGCATAC	1365

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209 (2) INFORMATION FOR SEQ ID NO: 5:

210 (i) SEQUENCE CHARACTERISTICS:

211 (A) LENGTH: 4698 base pairs

212 (B) TYPE: nucleic acid

213 (C) STRANDEDNESS: single

214 (D) TOPOLOGY: linear

215 (ii) MOLECULE TYPE: genomic DNA

216 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

217

218	ACCAACAGGAG AATGAAAAGA ACCCGGGACT CCCAAAGACG CTAGATGTGT	50
219	GAAGATCCTG ATCACTCATT GGGTGTCTGA GTTCTGCGAT ATTCACTCCCT	100
220	CAGCCAATGA CCTTAECTGTT CTCGTGGGG GTTTGTGAGC CTTGGTAGG	150
221	AAGTTTGCA AGTTCCGCCT ACAGCTCTAG CTTGTGAATT TGACCCCTTT	200
222	CACGTAAAAA AGTAGTCCAG AGTTTACTAC ACCCTCCCTC CCCCCCTCCCA	250
223	CCTCGTGTG TGCTGAGTTT AGAAGTCTTC CTTATAGAAG TCTTCCGTAT	300
224	AGAACTCTTC CGGAGGAAGG AGGGAGGACC CCCCCCCTTT GCTCTCCCAG	350
225	CATGCATTGT GTCAACGCCA TTGCACTGAG CTGGTCGAAG AAGTAAGCCG	400
226	CTAGCTTGCG ACTCTACTCT TATCTTAACT TAGCTCGGCT TCCTGCTGGT	450
227	ACCCTTTGTG CC	462
228	ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA	504
229	GGT GGT GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG	546
230	TAC TCC CTG GAA GAA ATT CTG CCT TAT CTA GGG TGG CTG GTC	588
231	TTC GCT GTT GTC ACA ACA AGT TTT CTG GCG CTC CAG ATG TTC	630
232	ATA GAC GCC CTT TAT GAG GAG CAG TAT GAA AGG GAT GTG GCC	672
233	TGG ATA GCC AGG CAA AGC AAG CGC ATG TCC TCT GTC GAT GAG	714
234	GAT GAA GAC GAT GAG GAT GAT GAG GAT GAC TAC TAC GAC GAC	756
235	GAG GAC GAC GAC GAT GCC TTC TAT GAT GAT GAG GAT GAT GAT	798
236	GAG GAA GAA GAA TTG GAG AAC CTG ATG GAT GAT GAA TCA GAA	840
237	GAT GAG GCC GAA GAA GAG ATG AGC GTG GAA ATG GGT GCC GGA	882
238	GCT GAG GAA ATG GGT GCT AAC TGT GCC T	916
239	GTGAGTAACC CGTGGTCTTT ACTCTAGATT CAGGTGGGGT GCATTCTTTA	966
240	CTCTTGCCTA CATCTGTAGT AAAGACCACA TTTTGGTTGG GGGTCATTGC	1016
241	TGGAGCCATT CCTGGCTCTC CTGTCACGC CTATCCCCGC TCCTCCCATC	1066
242	CCCCACTCCT TGCTCCGCTC TCTTCCCTTT TCCCACCTTG CCTCTGGAGC	1116
243	TTCAGTCCAT CCTGCTCTGC TCCCTTTCCC CTTTGCTCTC CTTGCTCCCC	1166
244	TCCCCCTCGG CTCAACTTTT CGTGCCTTCT GCTCTCTGAT CCCCACCCCTC	1216
245	TTCAGGCTTC CCCATTTGCT CCTCTCCCGA AACCCCTCCCC TTCTCTGTTCC	1266
246	CCTTTTCGCG CCTTTTCTTT CCTGCTCCCC TCCCCCTCCC TATTTCACCTT	1316
247	TCACCAAGCTT TGCTCTCCCT GCTCCCCCTCC CCCTTTTGCA CCTTTTCTTT	1366
248	TCCTGCTCCC CTCCCCCTCC CCTCCCTGTT TACCCCTTCAC CGCTTTTCCCT	1416
249	CTACCTGCTT CCCTCCCCCT TGCTGCTCCC TCCCTATTG CATTTCGGG	1466
250	TGCTCCTCCC TCCCCCTCCC CCTCCCTCCC TATTTGCATT TTCGGGTGCT	1516
251	CCTCCCTCCC CCTCCCCCAGG CCTTTTTTTT TTTTTTTTTT TTTTTTTTTT	1566
252	TTGGTTTTTC GAGACAGGGT TTCTCTTTGT ATCCCTGGCT GTCCTGGCAC	1616
253	TCACTCTGTA GACCAGGCTG GCCTCAAAC CAGAAATCTG CCTGCCTCTG	1666
254	CCTCCCAAAT GCTGGGATTA AAGGCTTGCA CCAGGACTGC CCCAGTGCAG	1716
255	GCCTTTCTTT TTTCTCCTCT CTGGTCTCCC TAATCCCTTT TCTGCATGTT	1766
256	AACTCCCCCTT TTGGCACCTT TCCTTTACAG GACCCCTCC CCCTCCCTGT	1816
257	TTCCCTTCCG GCACCCCTCC TAGCCCTGCT CTGTTCCCTC TCCCTGCTCC	1866
258	CCTCCCCCTC TTTGCTCGAC TTTAGCAGC CTTACCTCTC CCTGCTTTCT	1916

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SEQUENCE VERIFICATION REPORT
PATENT APPLICATION **US/08/819,669**

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Original Text